

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of:

LIN

Serial No. 09/084,441

Filed: May 27, 1998

Title: OPHTHALMIC SURGERY METHOD USING  
NON-CONTACT SCANNING LASER

Group Art Unit: 3739

Examiner: Michael Peffley

Client Reference: LIN

Attorney Docket: 62-575

February 8, 2001

**FOURTH SUPPLEMENTAL AMENDMENT**

**RECEIVED**

FEB 08 2001

Director of the U.S. Patent and Trademark Office  
Washington, D.C. 20231

Sir:

Kindly enter the following amendments and remarks in the above-referenced application.

**IN THE CLAIMS**

Kindly cancel claim 29, without prejudice.

Kindly amend the claims as follows.

For the Examiner's convenience, marked up copies of the claims newly presented to the Examiner in this Amendment are initially presented.

Afterwards, all pending claims newly added in the reissue application are presented in underlined form so as to correct for earlier deficiencies in presentation of the claims per 37 CFR 1.121(b)(2)(i)(C).

In both presentations, the claims are listed in dependency order rather than in strict numerical order.

#2B/F

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**IN THE CLAIMS**

Kindly cancel claim 29, without prejudice.

Kindly amend the claims as follows.

For the Examiner's convenience, marked up copies of the claims newly presented to the Examiner in this Amendment are initially presented.

Afterwards, all pending claims newly added in the reissue application are presented in underlined form so as to correct for earlier deficiencies in presentation of the claims per 37 CFR 1.121(b)(2)(i)(C).

In both presentations, the claims are listed in dependency order rather than in strict numerical order.

**Marked Up Copy of Claims  
With Amendments Made Herein**

24. (Amended) A method for performing ophthalmic surgery comprising:

providing a basic laser having a pulsed output laser beam of a fundamental ultraviolet wavelength within a range of 193-220 nm exiting from an output window of said basic laser, a repetition rate of 1 Hz to 1000 Hz, and an energy level exiting from said output window of said basic laser of no greater than 10 mJ per pulse;

focusing [applying] said pulsed laser beam onto corneal tissue to a predetermined generally fixed spot size; [and]

scanning said pulsed laser beam, through known positions of an optical device moved by galvanometric forces, in a substantially overlapping pattern on said corneal tissue such that adjacent ablation spots on a single ablation layer of said corneal tissue significantly overlap one another; and

removing from 0.05 to 0.5 microns of corneal tissue per pulse.

36. (Amended) The method for performing ophthalmic surgery according to claim 24, wherein:

an area of corneal tissue [0.05] 0.2 to 0.5 microns deep is removed [with each] per pulse of said pulsed laser beam.

Kindly add the following new dependent claims:

--107. (New) The method for performing ophthalmic surgery according to claim 24, wherein:

said scanning moves said optical device using a motor.

108. (New) The method for performing ophthalmic surgery according to claim 24, wherein said scanning comprises:

rotational movement of said optical device.

109. (New) The method for performing ophthalmic surgery according to claim 24, wherein said optical device comprises:

a mirrored device.

110. (New) The method for performing ophthalmic surgery according to claim 24, wherein said optical device comprises:

a refractive device.

111. (New) The method for performing ophthalmic surgery according to claim 24, wherein said scanning comprises:

translational movement of said optical device.--

39. (Amended) A method for performing ophthalmic surgery comprising:

providing a basic laser having a pulsed output laser beam of a fundamental ultraviolet wavelength within a range of 193-220 nm exiting from an output window of said basic laser, a repetition rate of at least 1 Hz to 1000 Hz, and an energy level exiting from said output window of said basic laser of 0.5 to 10 mJ per pulse; [and]

focusing said pulsed output laser beam onto corneal tissue to a predetermined generally fixed spot size;

scanning said pulsed laser beam, through known positions of an optical device moved by galvanometric forces, in a substantially overlapping pattern on said corneal tissue such that adjacent ablation spots on a single ablation layer of said corneal tissue significantly overlap one another; and

removing from 0.05 to 0.5 microns of corneal tissue per pulse.

48. (Amended) A method of performing laser ablation on tissue, said method comprising:

providing a basic laser having a pulsed output laser beam of a fundamental ultraviolet wavelength within a range of 193-220 nm exiting from an output window of said basic laser, a repetition rate of 1 Hz to 1000Hz, and an energy level exiting from said output window of said basic laser of no greater than 10 mJ per pulse;

providing a galvanometer scanner; and

significantly overlapping adjacent ablation spots focused to a predetermined generally fixed spot size on a single ablation layer of said tissue by controlling said pulsed output beam with said galvanometer scanner to provide a substantially overlapping pattern of beam pulses on said tissue which remove from 0.05 to 0.5 microns of tissue per pulse.

64. (Amended) The method of performing laser ablation on tissue according to claim 48, wherein:

an area of corneal tissue in a range of [0.05] 0.2 to 0.5 microns deep is removed [with each] per pulse of said pulsed output beam.

69. (Amended) A method for ablating tissue, comprising:

providing a basic laser having a pulsed output laser beam of a fundamental ultraviolet wavelength of 193 nm exiting from an output window of said basic laser, and a repetition rate of 1 Hz to 1000 Hz;

focusing said pulsed output laser beam onto said tissue to a predetermined generally fixed spot size; and

scanning said pulsed output laser beam, through known positions of an optical device moved by galvanometric forces, into a substantially overlapping pattern of beam pulses on said tissue such that adjacent ablation spots on a single ablation layer of said [corneal] tissue significantly overlap one another and remove from 0.05 to 0.5 microns of tissue per pulse.

45. (Amended) The method for [performing ophthalmic surgery] ablating tissue according to claim [39] 69, wherein:

an area of [corneal] tissue [0.05] 0.2 to 0.5 microns deep is removed [with each] per pulse of said pulsed laser beam.

Kindly add the following new dependent claims.

--112. (New) The method for ablating tissue according to claim 69, wherein:

said scanning moves said optical device using a motor.

113. (New) The method for ablating tissue according to claim 69, wherein said scanning comprises:

rotational movement of said optical device.

114. (New) The method for ablating tissue according to claim 69, wherein said optical device comprises:

a mirrored device.

115. (New) The method for ablating tissue according to claim 69, wherein said optical device comprises:

a refractive device.

116. (New) The method for ablating tissue according to claim 69, wherein said scanning comprises:

translational movement of said optical device.--

76. (Amended) An ophthalmic surgery apparatus for performing corneal refractive surgery by reshaping a portion of a corneal surface, said apparatus comprising:

a basic laser having a pulsed output laser beam of a fundamental ultraviolet wavelength within a range of 193-220 nm exiting from an output window of said basic laser, and an energy level exiting from said output window of said basic laser of less than 10 mJ per pulse sufficient to remove from 0.05 to 0.5 microns of tissue per pulse; and

a computer-controlled scanning device coupled to said basic laser to scan said pulsed output laser beam, through known positions of an optical device moved by galvanometric forces, to cause a significant overlap of adjacent ablation spots of predetermined generally fixed size on a single ablation layer to achieve a smooth ablation of corneal tissue [in an overlapped area between adjacent ablation spots].

78. (Amended) A method of performing corneal refractive surgery by reshaping a portion of corneal surface, said method comprising:

providing and pulsing a basic laser having an output laser beam of a fundamental ultraviolet wavelength within a range of 193-220 nm exiting from an output window of said basic laser, a repetition rate of 1 to 1000 pulses per second, and an energy level exiting from said output window of said basic laser of no greater than 10 mJ per pulse;

focusing said output laser beam onto a corneal surface in a predetermined fixed spot size;

scanning said output laser beam through known positions of an optical device moved by galvanometric forces; and

substantially overlapping adjacent ones of a plurality of ultraviolet laser beam pulses over a single ablation layer on [a] said corneal surface sufficient to ablate a depth of between 0.05 and 0.5 microns of corneal tissue per ultraviolet laser beam pulse.

81. (Amended) The method of performing corneal refractive surgery by reshaping a portion of a corneal surface according to claim 80, wherein:

said optical device includes a mirrored surface [selected scanner is a galvanometer scanner].

82. (Amended) An ophthalmic surgery apparatus, comprising:

a basic laser having an output laser beam of a fundamental ultraviolet wavelength within a range of 193-220 nm exiting from an output window of said basic laser, and an energy level exiting from said output window of said basic laser of less than about 10 mJ per pulse sufficient to remove from 0.05 to 0.5 microns of tissue per pulse; and

a computer-controlled scanning device coupled to said basic laser to scan said pulsed output laser beam, through known positions of an optical device moved by galvanometric forces, to cause a significant overlap of adjacent ablation spots of predetermined generally fixed size on a single ablation layer of said corneal surface to achieve a smooth ablation of corneal tissue [in an overlapped area between adjacent ablation spots].

87. (Amended) The ophthalmic surgery apparatus according to claim 82, wherein said scanning device comprises:

a [galvanometer] mirrored surface.

88. (Amended) The ophthalmic surgery apparatus according to claim [87] 82, wherein:

a [said] repetition rate of said laser is synchronized with said [galvanometer] scanning device.

Kindly add the following new dependent claims.



--117. (New) The ophthalmic surgery apparatus according to claim 82, wherein said optical device comprises:  
a motor.

118. (New) The ophthalmic surgery apparatus according to claim 82, wherein said optical device comprises:  
a mirrored device.

119. (New) The ophthalmic surgery apparatus according to claim 82, wherein said optical device comprises:  
a refractive device.—

117. (New) The ophthalmic surgery apparatus according to claim 82, wherein said optical device comprises:  
a motor.

90. (Amended) A method for performing corneal refractive surgery by reshaping a portion of corneal surface, comprising:

selecting a basic laser having a pulsed output laser beam of a fundamental ultraviolet wavelength within a range of 193-220 nm exiting from an output window of said basic laser, and an energy level exiting from said output window of said basic laser of less than 10 mJ/pulse;

selecting a scanning mechanism for scanning said pulsed output laser beam through known positions of an optical device moved by galvanometric forces;

coupling said pulsed output laser beam to said scanning mechanism for [scanning] focusing said pulsed output laser beam in a predetermined generally fixed spot size on [over] said corneal surface;

controlling said scanning mechanism to deliver said scanning pulsed output laser beam in a substantially overlapping pattern on said corneal surface such that adjacent ablation spots on a single ablation layer of said corneal tissue significantly overlap one another to at least one of photoablate and photocoagulate corneal tissue; and

removing from 0.05 to 0.5 microns of corneal tissue per pulse, whereby a patient's vision is corrected by said reshaping of said portion of said corneal surface of said patient's eye.

91. (Amended) A method for performing ophthalmic surgery, comprising:

providing a basic laser having a pulsed output laser beam of a fundamental ultraviolet wavelength within a range of 193-220 nm exiting from an output window of said basic laser, and an output energy level exiting from said output window of said basic laser of no greater than 10 mJ/pulse sufficient to remove from 0.05 to 0.5 microns of corneal tissue per pulse;

focusing [applying] said pulsing ultraviolet laser beam into a predetermined generally fixed spot size on [onto] corneal tissue; and

scanning said pulsing laser beam, through known positions of an optical device moved by galvanometric forces, in a purposefully substantially overlapping pattern on said corneal tissue such that adjacent ablation spots in said overlapping pattern on a single ablation layer of said corneal tissue significantly overlap one another.

94. (Amended) The method of performing ophthalmic surgery according to claim 91, wherein:

said pulsing ultraviolet laser beam is sufficient to ablate a depth in a range of [0.05] 0.2 and 0.5 microns of corneal tissue per pulse.

105. (Amended) The method for performing corneal refractive surgery according to claim 90, wherein said optical device [scanning mechanism] comprises:

a [galvanometer] mirrored surface.

**Reissue Claims in Fully Underlined Form  
In Accordance With 37 CFR 1.121(b)(2)(i)(C)**

33  
24. (Amended) A method for performing ophthalmic surgery comprising:

\_\_\_\_\_ providing a basic laser having a pulsed output laser beam of a fundamental ultraviolet wavelength within a range of 193-220 nm exiting from an output window of said basic laser, a repetition rate of 1 Hz to 1000 Hz, and an energy level exiting from said output window of said basic laser of no greater than 10 mJ per pulse;

F 1 \_\_\_\_\_ focusing said pulsed laser beam onto corneal tissue to a predetermined generally fixed spot size;

\_\_\_\_\_ scanning said pulsed laser beam, through known positions of an optical device moved by galvanometric forces, in a substantially overlapping pattern on said corneal tissue such that adjacent ablation spots on a single ablation layer of said corneal tissue significantly overlap one another; and

\_\_\_\_\_ removing from 0.05 to 0.5 microns of corneal tissue per pulse.

26. (Not Amended) The method for performing ophthalmic surgery according to claim 24, wherein:

\_\_\_\_\_ said substantially overlapping pattern is achieved using randomized scanning of said pulsed laser beam on said corneal tissue.

28. (Not Amended) The method for performing ophthalmic surgery according to claim 24, wherein:

\_\_\_\_\_ said pulsed laser beam has a spot size on said corneal tissue of no greater than 1 mm.

30. (Not Amended) The method for performing ophthalmic surgery according to claim 26, wherein:

\_\_\_\_\_ said pulsed laser beam has a spot size on said corneal tissue of no greater than 1 mm.

32. (Not Amended) The method for performing ophthalmic surgery according to claim 24, wherein:

pulses of said pulsed laser beam corresponding to adjacent ablation spots on said single ablation layer overlap one another by least 50 percent.

35. (Not Amended) The method for performing ophthalmic surgery according to claim 24, wherein:

said pulsed laser beam is scanned synchronously with said pulses of said pulsed laser beam.

36. (Amended) The method for performing ophthalmic surgery according to claim 24, wherein:

an area of corneal tissue 0.2 to 0.5 microns deep is removed per pulse of said pulsed laser beam.

37. (Not Amended) The method for performing ophthalmic surgery according to claim 24, wherein:

said pulsed laser beam is scanned in circular patterns.

38. (Not Amended) The method for performing ophthalmic surgery according to claim 24, wherein:

said pulsed laser beam is scanned in linear patterns.

42 107. (New) The method for performing ophthalmic surgery according to claim 24, wherein:

said scanning moves said optical device using a motor.

43 ~~108.~~ (New) The method for performing ophthalmic surgery according to claim ~~24~~<sup>33</sup>, wherein said scanning comprises:  
\_\_\_\_\_ rotational movement of said optical device.

44 ~~109.~~ (New) The method for performing ophthalmic surgery according to claim ~~24~~<sup>33</sup>, wherein said optical device comprises:  
\_\_\_\_\_ a mirrored device.

45 ~~110.~~ (New) The method for performing ophthalmic surgery according to claim ~~24~~<sup>33</sup>, wherein said optical device comprises:  
\_\_\_\_\_ a refractive device.

46 ~~111.~~ (New) The method for performing ophthalmic surgery according to claim ~~24~~<sup>33</sup>, wherein said scanning comprises:  
\_\_\_\_\_ translational movement of said optical device.

F3  
F4  
47 ~~39.~~ (Amended) A method for performing ophthalmic surgery comprising:  
\_\_\_\_\_ providing a basic laser having a pulsed output laser beam of a fundamental ultraviolet wavelength within a range of 193-220 nm exiting from an output window of said basic laser, a repetition rate of at least 1 Hz to 1000 Hz, and an energy level exiting from said output window of said basic laser of 0.5 to 10 mJ per pulse;  
\_\_\_\_\_ focusing said pulsed output laser beam onto corneal tissue to a predetermined generally fixed spot size;  
\_\_\_\_\_ scanning said pulsed laser beam, through known positions of an optical device moved by galvanometric forces, in a substantially overlapping pattern on said corneal tissue such that adjacent ablation spots on a single ablation layer of said corneal tissue significantly overlap one another; and  
\_\_\_\_\_ removing from 0.05 to 0.5 microns of corneal tissue per pulse.

40. (Not Amended) The method for performing ophthalmic surgery according to claim 39, wherein:

said pulsed laser beam has a spot size on said corneal tissue of no greater than 1 mm.

41. (Not Amended) The method for performing ophthalmic surgery according to claim 39, wherein:

pulses of said pulsed laser beam corresponding to adjacent ablation spots on said single ablation layer overlap one another by at least 50 percent.

43. (Not Amended) The method for performing ophthalmic surgery according to claim 39, wherein:

said pulsed laser beam is pulsed at a repetition rate of at least 50 Hz.

44. (Not Amended) The method for performing ophthalmic surgery according to claim 39, wherein:

said pulsed laser beam is scanned synchronously with said pulses of said pulsed laser beam.

46. (Not Amended) The method for performing ophthalmic surgery according to claim 39, wherein:

said pulsed laser beam is scanned in circular patterns.

47. (Not Amended) The method for performing ophthalmic surgery according to claim 39, wherein:

said pulsed laser beam is scanned in linear patterns.

54 48. (Amended) A method of performing laser ablation on tissue,  
said method comprising:

\_\_\_\_\_ providing a basic laser having a pulsed output laser beam of a  
fundamental ultraviolet wavelength within a range of 193-220 nm exiting from an  
output window of said basic laser, a repetition rate of 1 Hz to 1000Hz, and an  
energy level exiting from said output window of said basic laser of no greater  
than 10 mJ per pulse;

\_\_\_\_\_ providing a galvanometer scanner; and

\_\_\_\_\_ significantly overlapping adjacent ablation spots focused to a  
predetermined generally fixed spot size on a single ablation layer of said tissue  
by controlling said pulsed output beam with said galvanometer scanner to  
provide a substantially overlapping pattern of beam pulses on said tissue which  
remove from 0.05 to 0.5 microns of tissue per pulse.

49. (Not Amended) The method of performing laser ablation on  
tissue according to claim 48, wherein:

\_\_\_\_\_ said substantially overlapping pattern is achieved by placing said  
ablation spots on said single ablation layer of said tissue in random order.

53. (Not Amended) The method of performing laser ablation on  
tissue according to claim 48, wherein:

\_\_\_\_\_ said ultraviolet wavelength is in a range of 193 to 215 nm.

54. (Not Amended) The method of performing laser ablation on  
tissue according to claim 48, wherein:

\_\_\_\_\_ said ultraviolet wavelength is 193 nm.

55. (Amended) The method of performing laser ablation on tissue  
according to claim 48, wherein:

\_\_\_\_\_ said pulsed output laser beam has an energy level exiting from said  
output window of said basic laser in a range of 0.05 to 10 mJ per pulse.



57. (Not Amended) The method of performing laser ablation on tissue according to claim 48, wherein:

said pulsed output beam has a spot size on said tissue of no greater than 1 mm.

58. (Not Amended) The method of performing laser ablation on tissue according to claim 55, wherein:

said pulsed output beam has a spot size on said tissue of no greater than 1 mm.

60. (Not Amended) The method of performing laser ablation on tissue according to claim 48, wherein:

pulses of said pulsed output beam corresponding to adjacent ablation spots on said single ablation layer overlap one another by at least 50 percent.

63. (Not Amended) The method of performing laser ablation on tissue according to claim 48, wherein:

said pulsed output beam is scanned synchronously with said pulses of said pulsed output beam.

64. (Amended) The method of performing laser ablation on tissue according to claim 48, wherein:

an area of corneal tissue in a range of 0.2 to 0.5 microns deep is removed per pulse of said pulsed output beam.

65. (Not Amended) The method of performing laser ablation on tissue according to claim 48, wherein:

said pulsed output beam is scanned in circular patterns.

66. (Not Amended) The method of performing laser ablation on tissue according to claim 48, wherein:

said pulsed output beam is scanned in linear patterns.

67. (Not Amended) The method of performing laser ablation on tissue according to claim 48, wherein:

said pulsed output beam is scanned in concentric circles.

68. (Not Amended) The method of performing laser ablation on tissue according to claim 67, wherein:

said concentric circles have increasing diameters.

~~68~~

69. (Amended) A method for ablating tissue, comprising:

providing a basic laser having a pulsed output laser beam of a fundamental ultraviolet wavelength of 193 nm exiting from an output window of said basic laser, and a repetition rate of 1 Hz to 1000 Hz;

focusing said pulsed output laser beam onto said tissue to a predetermined generally fixed spot size; and

scanning said pulsed output laser beam, through known positions of an optical device moved by galvanometric forces, into a substantially overlapping pattern of beam pulses on said tissue such that adjacent ablation spots on a single ablation layer of said tissue significantly overlap one another and remove from 0.05 to 0.5 microns of tissue per pulse.

~~68~~

~~67~~  
~~45~~

45. (Amended) The method for ablating tissue according to claim 69, wherein:

an area of tissue 0.2 to 0.5 microns deep is removed per pulse of said pulsed laser beam.

~~70.~~ (Not Amended) The method for ablating tissue according to claim 69, wherein:

said substantially overlapping pattern of beam pulses has an orientation which is achieved using a randomized scanning of said pulsed output beam on said tissue.

~~71.~~ (Not Amended) The method for ablating tissue according to claim 69, wherein:

said pulsed output laser beam has an energy level exiting from said output window of said basic laser of no greater than 10 mJ per pulse.

~~72.~~ (Not Amended) The method for ablating tissue according to claim 69, wherein:

said scanning overlaps adjacent beam pulses corresponding to adjacent ablation spots on said single ablation layer by at least 50 percent.

~~75.~~ (Not Amended) The method for ablating tissue according to claim 69, wherein:

said basic laser is an excimer laser.

~~74~~  
~~112.~~ (New) The method for ablating tissue according to claim ~~69~~,  
wherein:

said scanning moves said optical device using a motor.

~~113.~~ (New) The method for ablating tissue according to claim ~~69~~,  
wherein said scanning comprises:

rotational movement of said optical device.

~~114.~~ (New) The method for ablating tissue according to claim ~~69~~,  
wherein said optical device comprises:

a mirrored device.

<sup>17</sup>  
~~115~~. (New) The method for ablating tissue according to claim 69,  
wherein said optical device comprises:

a refractive device.

F10 <sup>18</sup>  
~~116~~. (New) The method for ablating tissue according to claim 69,  
wherein said scanning comprises:

translational movement of said optical device.

~~74~~ ~~76~~. (Amended) An ophthalmic surgery apparatus for performing  
corneal refractive surgery by reshaping a portion of a corneal surface, said  
apparatus comprising:

F10 a basic laser having a pulsed output laser beam of a fundamental  
ultraviolet wavelength within a range of 193-220 nm exiting from an output  
window of said basic laser, and an energy level exiting from said output window  
of said basic laser of less than 10 mJ per pulse sufficient to remove from 0.05 to  
0.5 microns of tissue per pulse; and

a computer-controlled scanning device coupled to said basic laser  
to scan said pulsed output laser beam, through known positions of an optical  
device moved by galvanometric forces, to cause a significant overlap of adjacent  
ablation spots of predetermined generally fixed size on a single ablation layer to  
achieve a smooth ablation of corneal tissue.

80 ~~78.~~ (Amended) A method of performing corneal refractive surgery by reshaping a portion of corneal surface, said method comprising:

providing and pulsing a basic laser having an output laser beam of a fundamental ultraviolet wavelength within a range of 193-220 nm exiting from an output window of said basic laser, a repetition rate of 1 to 1000 pulses per second, and an energy level exiting from said output window of said basic laser of no greater than 10 mJ per pulse;

focusing said output laser beam onto a corneal surface in a predetermined fixed spot size;

scanning said output laser beam through known positions of an optical device moved by galvanometric forces; and

substantially overlapping adjacent ones of a plurality of ultraviolet laser beam pulses over a single ablation layer on said corneal surface sufficient to ablate a depth of between 0.05 and 0.5 microns of corneal tissue per ultraviolet laser beam pulse.

80 (Not Amended) The method of performing corneal refractive surgery by reshaping a portion of a corneal surface according to claim 78, further comprising:

selecting a scanner to scan said overlapping plurality of laser beam pulses, said scanner deflecting said laser beam pulses a predetermined angle.

81. (Amended) The method of performing corneal refractive surgery by reshaping a portion of a corneal surface according to claim ~~80~~, wherein:

said optical device includes a mirrored surface.

82. (Amended) An ophthalmic surgery apparatus, comprising:  
a basic laser having an output laser beam of a fundamental ultraviolet wavelength within a range of 193-220 nm exiting from an output window of said basic laser, and an energy level exiting from said output window

of said basic laser of less than about 10 mJ per pulse sufficient to remove from 0.05 to 0.5 microns of tissue per pulse; and

FI4 a computer-controlled scanning device coupled to said basic laser to scan said pulsed output laser beam, through known positions of an optical device moved by galvanometric forces, to cause a significant overlap of adjacent ablation spots of predetermined generally fixed size on a single ablation layer of said corneal surface to achieve a smooth ablation of corneal tissue.

83. (Not Amended) The ophthalmic surgery apparatus according to claim 82, wherein:

said pulses are overlapped in a range of 50 to 80 percent.

85. (Not Amended) The ophthalmic surgery apparatus according to claim 82, wherein:

said pulsed beam has a spot size on said corneal tissue of less than or equal to 2 mm.

FI5 27 87. (Amended) The ophthalmic surgery apparatus according to claim 82, wherein said scanning device comprises:

a mirrored surface.

28 24 88. (Amended) The ophthalmic surgery apparatus according to claim 82, wherein:

a repetition rate of said laser is synchronized with said scanning device.

89. (Not Amended) The ophthalmic surgery apparatus according to claim 82, wherein:

successive pulses of said pulsed beam are rotated through a linear-scan angle by said scanning device.

<sup>24</sup>  
~~82~~ <sup>30</sup>  
~~117.~~ (New) The ophthalmic surgery apparatus according to claim  
82, wherein said optical device comprises:  
a motor.

<sup>24</sup>  
~~82~~ <sup>31</sup>  
~~118.~~ (New) The ophthalmic surgery apparatus according to claim  
82, wherein said optical device comprises:  
a mirrored device.

<sup>24</sup>  
~~82~~ <sup>32</sup>  
~~119.~~ (New) The ophthalmic surgery apparatus according to claim  
82, wherein said optical device comprises:  
a refractive device.

<sup>83</sup>  
~~90.~~ (Amended) A method for performing corneal refractive surgery  
by reshaping a portion of corneal surface, comprising:  
selecting a basic laser having a pulsed output laser beam of a  
fundamental ultraviolet wavelength within a range of 193-220 nm exiting from an  
output window of said basic laser, and an energy level exiting from said output  
window of said basic laser of less than 10 mJ/pulse;  
selecting a scanning mechanism for scanning said pulsed output  
laser beam through known positions of an optical device moved by galvanometric  
forces;  
coupling said pulsed output laser beam to said scanning  
mechanism for focusing said pulsed output laser beam in a predetermined  
generally fixed spot size on said corneal surface;  
controlling said scanning mechanism to deliver said scanning  
pulsed output laser beam in a substantially overlapping pattern on said corneal  
surface such that adjacent ablation spots on a single ablation layer of said  
corneal tissue significantly overlap one another to at least one of photoablate and  
photocoagulate corneal tissue; and

removing from 0.05 to 0.5 microns of corneal tissue per pulse,  
whereby a patient's vision is corrected by said reshaping of said portion of said  
corneal surface of said patient's eye.

<sup>86</sup>  
91. (Amended) A method for performing ophthalmic surgery,  
comprising:

<sup>F17</sup>  
providing a basic laser having a pulsed output laser beam of a  
fundamental ultraviolet wavelength within a range of 193-220 nm exiting from an  
output window of said basic laser, and an output energy level exiting from said  
output window of said basic laser of no greater than 10 mJ/pulse sufficient to  
remove from 0.05 to 0.5 microns of corneal tissue per pulse;

focusing said pulsing ultraviolet laser beam into a predetermined  
generally fixed spot size on corneal tissue; and

scanning said pulsing laser beam, through known positions of an  
optical device moved by galvanometric forces, in a purposefully substantially  
overlapping pattern on said corneal tissue such that adjacent ablation spots in  
said overlapping pattern on a single ablation layer of said corneal tissue  
significantly overlap one another.

<sup>88</sup>  
93. (Not Amended) The method of performing ophthalmic surgery  
according to claim 91, wherein:

said pulsing ultraviolet laser beam is pulsed at a repetition rate of 1  
to 1000 Hz.

<sup>88</sup>  
94. (Amended) The method of performing ophthalmic surgery  
according to claim <sup>86</sup>91, wherein:

<sup>F18</sup>  
said pulsing ultraviolet laser beam is sufficient to ablate a  
depth in a range of 0.2 and 0.5 microns of corneal tissue per pulse.



95. (Not Amended) The method of performing ophthalmic surgery according to claim 91, wherein:

said substantially overlapping pattern is achieved using a randomized scanning of said pulsing laser beam on said corneal tissue.

97. (Not Amended) The method of performing ophthalmic surgery according to claim 91, wherein:

pulses of said ultraviolet laser beam corresponding to adjacent ablation spots on said single ablation layer overlap one another by at least 50 percent.

98. (Not Amended) The method of performing ophthalmic surgery according to claim 91, wherein:

pulses of said ultraviolet laser beam corresponding to adjacent ablation spots on said single ablation layer overlap one another in a range of 50 to 80 percent.

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105. (Amended) The method for performing corneal refractive surgery according to claim <sup>83</sup>90, wherein said optical device comprises:

a mirrored surface.

106. (Not Amended) The method for performing corneal refractive surgery according to claim 90, further comprising:

aligning a center of said scanning laser beam onto said corneal surface with a visible aiming beam.

95. (Not Amended) The method of performing ophthalmic surgery according to claim 91, wherein:

\_\_\_\_\_ said substantially overlapping pattern is achieved using a randomized scanning of said pulsing laser beam on said corneal tissue.

97. (Not Amended) The method of performing ophthalmic surgery according to claim 91, wherein:

\_\_\_\_\_ pulses of said ultraviolet laser beam corresponding to adjacent ablation spots on said single ablation layer overlap one another by at least 50 percent.

98. (Not Amended) The method of performing ophthalmic surgery according to claim 91, wherein:

\_\_\_\_\_ pulses of said ultraviolet laser beam corresponding to adjacent ablation spots on said single ablation layer overlap one another in a range of 50 to 80 percent.

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105. (Amended) The method for performing corneal refractive surgery according to claim 90, wherein said optical device comprises:

\_\_\_\_\_ a mirrored surface.

F19

106. (Not Amended) The method for performing corneal refractive surgery according to claim 90, further comprising:

\_\_\_\_\_ aligning a center of said scanning laser beam onto said corneal surface with a visible aiming beam.

### REMARKS

Claims 1-24, 26, 28, 30, 32, 35-41, 43-49, 53-55, 57, 58, 60, 63-72, 75, 76, 78, 80-83, 85, 87-91, 93-95, 97, 98, and 105-119 are pending in the application, with claims 25, 27, 29, 31, 33, 34, 42, 50-52, 56, 59, 61, 62, 73, 74, 77, 79, 84, 86, 92, 96, and 99-104 having been cancelled, and dependent claims 107-119 being new.

The Applicant thanks the Examiner for the courtesy extended in a telephone conference on January 30, 2001. In that conference, the Examiner indicated that a rigorous review of the entire history of the patent applications had been performed, *inter alia*, with respect to the 'Recapture Rule'.

### RECAPTURE RULE ISSUES

In particular, the Examiner indicated that a detailed review of the entire prosecution history had been performed by Examiner Kasnikov (SPE), including a review of all pending claims of the present application and comparison to issued claims of USP 5,520,679 ("The '679 Patent"). As a result of the exhaustive review which apparently took several weeks to complete, the Examiners identified only five areas of concern relating to the Recapture Rule.

The following limitations from claim 1 of the '679 patent were cited with respect to the Examiners' interpretation of Recapture Rule requirements:

- (1) "focusing laser beam to a predetermined generally fixed spot size"
- (2) "removing from 0.05 to 0.5 microns of tissue per pulse"
- (3) "low power laser"
- (4) "selecting a laser . . . 10 mJ/pulse"
- (5) "galvanometer"

### "focusing laser beam to a predetermined generally fixed spot size"

To facilitate a completion to the extended prosecution of this Reissue application, this language is added herein to all pending claims, now mooted all issues relating to the 'Recapture Rule' in this regard.

**“removing from 0.05 to 0.5 microns of tissue per pulse”**

To facilitate a completion to the extended prosecution of this Reissue application, this language is added herein to all pending claims, now mooted all issues relating to the ‘Recapture Rule’ in this regard.

Dependent claims, which previously recited this range, rather than being deleted are amended herein to further limit this range to 0.2 to 0.5 microns removed per ablation pulse, as supported in the PARENT application at, *inter alia*, page 24, lines 8-9; see also page 22, line 20.

**“low power laser”**

The nature of the general phrase “low power laser” is already in the claims of the Reissue application, e.g., in the overlapping requirement of all claims, and as otherwise variously recited in all pending claims.

The Federal Circuit has provided a two part test in applying the Recapture Rule in In re Clement, 45 USPQ2d 1161, 1164 (Fed. Cir. 1997). “The first step in applying the recapture rule is to determine whether and in what ‘aspect’ the reissue claims are broader than the patent claims.” Id. “The second step is to determine whether the broader aspects of the reissue claims relate to surrendered subject matter.” Id. “To determine whether an applicant surrendered particular subject matter, we look to the prosecution history for arguments and changes to the claims made in an effort to overcome a prior art rejection.” (citing Mentor Corp. v. Coloplast, Inc., 27 USPQ2d 1521, 1524-25 (Fed. Cir. 1993) and Ball Corp. v. United States, 221 USPQ 289, 294-95 (Fed. Cir. 1984)) “[T]he relevance of the prior art rejection to the aspects narrowed in the reissue claim [is] an important factor . . .” Id.

The use of what may be referred to generally as a “low power laser” has been present in all iterations of the claims throughout the prosecution history of both the PARENT application (US Appl. No. 07/985,617) and the CIP application (US Appl. No. 08/218,319). Since it has been consistently maintained, from initial filing of the PARENT application through issuance of the CIP application, the phrase “low power laser” was never ‘added’ as a ‘change’ to

a claim in an effort to overcome a prior art rejection. Accordingly, the test and guidance provided by the Federal Circuit in Clement confirms that there is no recapture problem in this regard.

In particular, the phrase “low power laser” was recited in independent claim 21 of the original PARENT application, and existed in at least one claim at each stage of the prosecution, including issuance. More specific language reciting a low power energy range of 0.5 to 10 mJ per pulse was included in dependent claim 32 of the PARENT application. The phrase “low power laser” was recited in dependent claim 2 of the CIP application, which remained through the first amendment filed in the CIP application. Claim 2 of the CIP application containing the phrase “low power laser” was indicated as being allowable at this point. This allowable subject matter was rewritten into the ultimately issued claim 1 of the ‘679 patent.

The “low power laser” language has never been intentionally surrendered in any arguments presented to the USPTO. Detailed features already recited in the reissue claims inherently define what is meant by the generally phrase “low power laser” as it relates to the particular claim.

It is therefore respectfully submitted that upon a more detailed review of the substance of the relevant technology, the prosecution history and the state of the reissue claims, it will be seen and understood that the general phrase “low power laser” has never provided a basis for the intentional surrender of any particular subject matter by the Applicant.

**“selecting a laser . . . 10 mJ/pulse”**

Language relating to the step of “selecting” a laser having particular parameters has been present in all iterations of the claims throughout the prosecution history, and has never been added to overcome a prior art rejection, and thus has never been the basis for an intentional surrender of subject matter by the Applicant.

For instance, claim 8 of the PARENT application originally recited that “the step of selecting a scanning laser includes selecting a said scanning

laser having an output of 0.01-10 mJ.” The language is carried through the Amendment in the PARENT application in claim 32, which in turn is carried through to the original claim 1 of the CIP application, remains in claim 1 through the first and second Amendments therein, and ultimately issues in claim 1 of the CIP application. Thus, the step of “selecting” a particular laser remains in every filing by Applicant throughout the history of both the CIP and parent applications, ultimately issuing in claim 1 of the ‘679 patent, and thus was never surrendered.

For instance, not only is the limitation present as a limitation in all iterations of the claims, there are no comments whatsoever in the only amendment filed in the PARENT application relating to the selection of a particular laser. Moreover, generalized comments made in the Dec. 22, 1995 Amendment of the CIP application were made after the relevant claim was indicated as being allowable. Thus, the comments were not made to ‘overcome a prior art rejection’ as required by Clement.

It is therefore respectfully submitted that upon a more detailed review of the substance of the relevant technology, the prosecution history and the state of the reissue claims, it will be seen and understood that this language has never been intentionally surrendered by the Applicant.

**“galvanometer scanning mechanism”**

To facilitate a completion to the extended prosecution of this Reissue application, **all** pending reissue claims are amended herein to include scanning a laser beam “through known positions of an optical device moved by **galvanometric forces**”.

The “galvanometric scanning technique” of the present invention as claimed in the original claims of the ‘679 patent was discussed in the prosecution history, e.g., in the second (last) Amendment of the CIP application before allowance, mailed Dec. 22, 1995.

Dependent claims 107-119 are newly added herein to provide further limitations to the galvanometric scanning, as fully supported by the specification as read by one of ordinary skill in the art. For instance, new

dependent claims further define that the optical device moved by galvanometric forces may be achieved using, e.g., a motor. Others further define that the movement provided may rotate and/or translate an optical device. Accordingly, all pending claims as amended require scanning using a galvanometer scanning mechanism, i.e., any galvanometric device (e.g., a motor) which moves an optical device (e.g., mirror, prism, etc.) through known positions to manipulate a laser beam.

It is respectfully submitted that the addition of this limitation to all reissue claims moots any suggestion of a problem associated with the 'Recapture Rule' in this regard.

#### USPTO PALM SYSTEM RECORDS

The Examiner also indicated that an apparent ambiguity exists in the U.S. PTO "PALM" system as to the identity of the Assignee of the present Reissue application.

Perhaps the ambiguity spoken of by the Examiner relates to a security interest granted to Foothill Capital Corporation which was recorded at the USPTO. A best available copy of the security interest (Exhibit I: Tab B), as well as a copy of a subsequently filed amendment to the security interest (Exhibit I: Tab C), are attached hereto for the Examiner's convenience. For completeness, a copy of the initial assignment from the inventor to LaserSight, Inc. is also enclosed (Exhibit I: Tab A); as is a copy of an ultimately filed release of the security interest back to LaserSight, Inc. (Exhibit I: Tab D)

37 CFR 1.172(a) requires a declaration from "all assignees, if any, owning an undivided interest in the patent". LaserSight, Inc. has always owned a 100% undivided interest in the '679 patent. This is clear, e.g., from the "Schedule A" attached to the end of the Patent Security Agreements (Exhibit I: Tabs B and C).

In obtaining the collateral, the lender required signature by all subsidiaries of LaserSight, Inc. at the time. Thus, the Patent Security Agreements included the signature of Gregory Wilson acting in his authority in

each of LaserSight Technologies, Inc., MEC Health Care, Inc., LSI Acquisition, Inc., LaserSight Centers Incorporated, and MRF, Inc. Each of these companies were subsidiaries 100% owned and operated by LaserSight, Inc., the full owner of the '679 patent at all times.

As the Examiners can plainly determine for themselves, LaserSight, Inc. has always had an undivided 100% interest in the '679 patent.

#### Conclusion

For the purpose of leaving a clear prosecution history, Applicant would like to explicitly note that the language "substantially overlapping adjacent ones of a plurality of pulses over a single ablation layer" and similar phraseology in the claims relates to the overlap of pulses ultimately laid down adjacent to one another, but that these adjacent pulses need not be laid down sequentially, just ultimately on the same ablation layer. For example, as disclosed in the application, the pulses may be laid down randomly.

Accordingly, as the Examiners can duly confirm for themselves, no recapture issues remain in any of the pending claims of the present Reissue application. It is therefore respectfully submitted that the subject application remains in condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,



William H. Bollman  
Reg. No.: 36,457

MANELLI DENISON & SELTER PLLC  
2000 M Street, N.W. 7<sup>th</sup> Floor  
Washington D.C. 20036-3307  
TEL: (202) 261-1020  
FAX: (202) 887-0336



[illegible]

## **EXHIBIT I**

**Tab A - Assignment From Inventor to LaserSight, Inc.**

**Tab B - Security Agreement Pledging '679 Patent  
as Collateral**

**Tab C - Amendment to Security Agreement**

**Tab D - Release of Security Agreement**

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RECEIVED

[illegible]

A

## A S S I G N M E N T

08/218319

WHEREAS, Dr. J.T. Lin  
 hereinafter referred to as assignor, has made certain improvements  
 or inventions in OPHTHALMIC SURGERY METHOD USING NON-CONTACT  
SCANNING LASER for which said assignor has executed  
 an application for United States Letters Patent on the 25th day of  
March 1994, and

WHEREAS, LaserSight, Inc.  
 hereinafter referred to as assignee, is desirous of acquiring the  
 same;

NOW THEREFORE, This Indenture Witnesseth: That for and in  
 consideration of ONE DOLLAR, lawful money of the United States and  
 other good and valuable consideration, receipt whereof is hereby  
 acknowledged, said assignor does hereby sell, assign, and transfer  
 to said assignee, its successors and assigns, all right, title and  
 interest in and to said U.S. Patent Application, the invention or  
 inventions therein shown and described and any improvements on said  
 inventions heretofore or hereafter made, any divisions of  
 continuations of said application, and all patents, United States  
 and foreign, to be granted upon any such application, or for the  
 invention or inventions thereof, and any reissues, continuations or  
 extensions of said patents; and said assignor does hereby authorize  
 and request the Commissioner of Patents to issue all patents on  
 said United States Patent applications or for the invention or  
 inventions hereof, in accordance with this assignment.

And said assignor for said consideration hereby covenants and  
 agrees that said assignor is the owner of the full title herein  
 conveyed and has the right to convey the same, and agrees that said  
 assignor will communicate to said assignee, any facts known to said  
 assignor respecting said invention or inventions, and testify in  
 any legal proceedings when called upon by said assignee, sign all  
 lawful papers deemed by said assignee as expedient to vest in it  
 the legal title herein sought to be conveyed or for the filing and  
 prosecution of all applications and patents, United States and  
 foreign, and otherwise aid said assignee, its successors and  
 assigns, in obtaining full patent protection on said invention and  
 enforcing proper protection under said patents, but in every  
 instance at the assignee's expense

Signed and sealed this 25<sup>th</sup>  
 day of MARCH, 1994.

Dr. J.T. Lin RECORDED  
 PATENT & TRADEMARK OFFICE

STATE OF FLORIDA:  
 COUNTY OF ORANGE:

MAR 25 94

The foregoing instrument was acknowledged before me this 25<sup>th</sup> day  
 of MARCH, 1994 by Dr. J.T. Lin, who is personally known  
 to me or who has produced as  
 identification and who did/did not take an oath.

NOTARY PUBLIC  
 My Commission Expires:



OFFICIAL SEAL  
 WILLIAM M. HOBBS  
 My Commission Expires  
 Feb. 16, 1996  
 Comm. No. CC 180901

REEL 939 FRAME 76

[illegible]

B



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

MAY 21, 1997

PTAS

BROBECK, PHLEGER & HARRISON, LLP  
KARA L. BUE, ESQ.  
550 S. HOPE STREET  
LOS ANGELES, CA 90071



\*100389470A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, NORTH TOWER BUILDING, SUITE 10C35, WASHINGTON, D.C. 20231.

RECORDATION DATE: 04/03/1997

REEL/FRAME: 8430/0001  
NUMBER OF PAGES: 22

BRIEF: SECURITY INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

LASERSIGHT INCORPORATED--A  
DELAWARE CORPORATION

DOC DATE: 03/31/1997

ASSIGNOR:

LASERSIGHT TECHNOLOGIES, INC.--A  
DELAWARE CORP.

DOC DATE: 03/31/1997

ASSIGNOR:

MEC HEALTH CARE, INC.--A MARYLAND  
CORPORATION

DOC DATE: 03/31/1997

ASSIGNOR:

LSI ACQUISITION, INC.--A N.J.  
CORP.

DOC DATE: 03/31/1997

ASSIGNOR:

LASERSIGHT CENTERS INCORPORATED--A  
DELAWARE CORP.

DOC DATE: 03/31/1997

ASSIGNOR:

MRF, INC.--A MISSOURI CORPORATION

DOC DATE: 03/31/1997

8430/0001 PAGE 2

**ASSIGNEE :**

FOOTHILL CAPITAL CORPORATION  
11111 SANTA MONICA BLVD.  
SUITE 1500  
LOS ANGELES, CALIFORNIA 90025

SERIAL NUMBER: 06894520  
PATENT NUMBER: 4784135

FILING DATE: 08/11/1986  
ISSUE DATE: 11/15/1988

SERIAL NUMBER: 08269139  
PATENT NUMBER: 5460627

FILING DATE: 06/30/1994  
ISSUE DATE: 10/24/1995

SERIAL NUMBER: 07884008  
PATENT NUMBER: 5217452

FILING DATE: 05/18/1992  
ISSUE DATE: 06/08/1993

SERIAL NUMBER: 07886926  
PATENT NUMBER: 5370641

FILING DATE: 05/22/1992  
ISSUE DATE: 12/06/1994

SERIAL NUMBER: 08218319  
PATENT NUMBER: 5520679

FILING DATE: 03/25/1994  
ISSUE DATE: 05/28/1996

SERIAL NUMBER: 07736931  
PATENT NUMBER: 5144630

FILING DATE: 07/29/1991  
ISSUE DATE: 09/01/1992

[illegible]

STEVEN POST, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

ORCA PTO-1595  
Rev. 6-83)

US No. 0651-0011 (EXP. 4/94)

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04-10-1997



100389470

IR SHEET

U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

551-34600

4784135

To the Honorable Commissioner of Patents and Trademarks, I have recorded the attached original documents or copy thereof.

1. Name of conveying party(ies):

MRD 4-8-97

See attached

Additional name(s) of conveying party(ies) attached? ☒ Yes ☐ No

3. Nature of conveyance:

☐ Assignment

☐ Merger

☒ Security Agreement

☐ Change of Name

☐ Other

Execution Date: March 31, 1997

2. Name and address of receiving party(ies)

Name: Foothill Capital Corporation

Internal Address:

Street Address: 11111 Santa Monica Blvd.,

Suite 1500

City: Los Angeles State: CA ZIP: 90025

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

See attached

B. Patent No.(s)

See attached

Additional numbers attached? ☒ Yes ☐ No

Name and address of party to whom correspondence concerning document should be mailed:

Name: Kara L. Bue, Esq.

Internal Address: Brobeck, Phlegger & Harrison

LLP

Street Address: 550 S. Hope Street

City: Los Angeles State: CA ZIP: 90071

6. Total number of applications and patents involved: 6

7. Total fee (37 CFR 3.41) \$ 240.00

☒ Enclosed

☐ Authorized to be charged to deposit account

8. Deposit account number:

410 JS 04/11/97 514630  
2.581 240.00 CR

(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Kara L. Bue

Name of Person Signing

Signature

4/3/97

Date

Total number of pages including cover sheet, attachments, and document: 22

Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents & Trademarks, Box Assignment



**Continuation of Recordation Form Cover Sheet  
for the U.S. Patent and Trademark Office**

**Names and Addresses of Conveying Parties:**

LaserSight Incorporated -- a Delaware corporation  
12161 Lackland Road  
St. Louis, Missouri 63146

LaserSight Technologies, Inc. -- a Delaware corporation  
12249 Science Drive, Suite 160  
Orlando, Florida 32826

MEC Health Care, Inc. -- a Maryland corporation  
100 Park Avenue  
Baltimore, Maryland 21201

LSI Acquisition, Inc. -- a New Jersey corporation  
71 Second Street  
South Orange, New Jersey 07079

LaserSight Centers Incorporated -- a Delaware corporation  
12161 Lackland Road  
St. Louis, Missouri 63146

MRF, Inc. -- a Missouri corporation  
12161 Lackland Road  
St. Louis, Missouri 63146

## PATENT SECURITY AGREEMENT

**THIS PATENT SECURITY AGREEMENT** (this "Agreement"), dated as of March 31, 1997, is made by each of **LASERSIGHT INCORPORATED**, a Delaware corporation ("LaserSight"), **LASERSIGHT TECHNOLOGIES, INC.**, a Delaware corporation ("Technologies"), **MEC HEALTH CARE, INC.**, a Maryland corporation ("MEC"), **LSI ACQUISITION, INC.**, a New Jersey corporation ("LSI"), **LASERSIGHT CENTERS INCORPORATED**, a Delaware corporation ("Centers"), and **MRF, INC.**, a Missouri corporation ("MRF"; collectively, with LaserSight, Technologies, MEC, LSI, and Centers, the "Debtors"), in favor of **FOOTHILL CAPITAL CORPORATION**, a California corporation ("Secured Party").

### RECITALS

A. The Debtors and Secured Party have entered into that certain Loan and Security Agreement, dated as of even date herewith (as amended, restated, modified, renewed or extended from time to time, the "Loan Agreement"), pursuant to which Secured Party has agreed to make certain financial accommodations to the Debtors, and each Debtor has granted to Secured Party a security interest in (among other things) all of the general intangibles of such Debtor.

B. Pursuant to the Loan Agreement and as one of the conditions precedent to the obligations of Secured Party under the Loan Agreement, each Debtor has agreed to execute and deliver this Agreement to Secured Party for filing with the United States Patent and Trademark Office and with any other relevant recording systems in any domestic or foreign jurisdiction, and as further evidence of and to effectuate Secured Party's existing security interests in the patents and other general intangibles described herein.

### ASSIGNMENT

NOW, THEREFORE, for valuable consideration, the receipt and adequacy of which is hereby acknowledged, each Debtor hereby agrees in favor of Secured Party as follows:

1. Definitions; Interpretation.

(a) Certain Defined Terms. As used in this Agreement, the following terms shall have the following meanings:

"Patent Collateral" has the meaning set forth in Section 2.

"Patents" has the meaning set forth in Section 2.

**"Proceeds"** means whatever is receivable or received from or upon the sale, lease, license, collection, use, exchange or other disposition, whether voluntary or involuntary, of any Patent Collateral, including "proceeds" as defined at UCC Section 9306, all insurance proceeds and all proceeds of proceeds. Proceeds shall include (i) any and all accounts, chattel paper, instruments, general intangibles, cash and other proceeds, payable to or for the account of any Debtor, from time to time in respect of any of the Patent Collateral, (ii) any and all proceeds of any insurance, indemnity, warranty or guaranty payable to or for the account of any Debtor from time to time with respect to any of the Patent Collateral, (iii) any and all claims and payments (in any form whatsoever) made or due and payable to any Debtor from time to time in connection with any requisition, confiscation, condemnation, seizure or forfeiture of all or any part of the Patent Collateral by any Person acting under color of governmental authority, and (iv) any and all other amounts from time to time paid or payable under or in connection with any of the Patent Collateral or for or on account of any damage or injury to or conversion of any Patent Collateral by any Person.

**"PTO"** means the United States Patent and Trademark Office and any successor thereto.

**"Secured Obligations"** means all liabilities, obligations, or undertakings owing by each Debtor to Secured Party of any kind or description arising out of or outstanding under, advanced or issued pursuant to, or evidenced by the Loan Agreement, the other Loan Documents, or this Agreement, irrespective of whether for the payment of money, whether direct or indirect, absolute or contingent, due or to become due, voluntary or involuntary, whether now existing or hereafter arising, and including all interest (including interest that accrues after the filing of a case under the Bankruptcy Code) and any and all costs, fees (including attorneys fees), and expenses which any one or more of the Debtors is required to pay pursuant to any of the foregoing, by law, or otherwise.

**"UCC"** means the Uniform Commercial Code as in effect from time to time in the State of California.

**"United States"** and **"U.S."** each mean the United States of America.

(b) **Terms Defined in UCC.** Where applicable and except as otherwise defined herein, terms used in this Agreement shall have the meanings ascribed to them in the UCC.

(c) **Interpretation.** In this Agreement, except to the extent the context otherwise requires:

(i) Any reference to a Section or a Schedule is a reference to a section hereof, or a schedule hereto, respectively, and to a subsection or a clause is, unless otherwise stated, a reference to a subsection or a clause of the Section or subsection in which the reference appears.

"Proceeds" means whatever is receivable or received from or upon the sale, lease, license, collection, use, exchange or other disposition, whether voluntary or involuntary, of any Patent Collateral, including "proceeds" as defined at UCC Section 9306, all insurance proceeds and all proceeds of proceeds. Proceeds shall include (i) any and all accounts, chattel paper, instruments, general intangibles, cash and other proceeds, payable to or for the account of any Debtor, from time to time in respect of any of the Patent Collateral, (ii) any and all proceeds of any insurance, indemnity, warranty or guaranty payable to or for the account of any Debtor from time to time with respect to any of the Patent Collateral, (iii) any and all claims and payments (in any form whatsoever) made or due and payable to any Debtor from time to time in connection with any requisition, confiscation, condemnation, seizure or forfeiture of all or any part of the Patent Collateral by any Person acting under color of governmental authority, and (iv) any and all other amounts from time to time paid or payable under or in connection with any of the Patent Collateral or for or on account of any damage or injury to or conversion of any Patent Collateral by any Person.

"PTO" means the United States Patent and Trademark Office and any successor thereto.

"Secured Obligations" means all liabilities, obligations, or undertakings owing by each Debtor to Secured Party of any kind or description arising out of or outstanding under, advanced or issued pursuant to, or evidenced by the Loan Agreement, the other Loan Documents, or this Agreement, irrespective of whether for the payment of money, whether direct or indirect, absolute or contingent, due or to become due, voluntary or involuntary, whether now existing or hereafter arising, and including all interest (including interest that accrues after the filing of a case under the Bankruptcy Code) and any and all costs, fees (including attorneys fees), and expenses which any one or more of the Debtors is required to pay pursuant to any of the foregoing, by law, or otherwise.

"UCC" means the Uniform Commercial Code as in effect from time to time in the State of California.

"United States" and "U.S." each mean the United States of America.

(b) Terms Defined in UCC. Where applicable and except as otherwise defined herein, terms used in this Agreement shall have the meanings ascribed to them in the UCC.

(c) Interpretation. In this Agreement, except to the extent the context otherwise requires:

(i) Any reference to a Section or a Schedule is a reference to a section hereof, or a schedule hereto, respectively, and to a subsection or a clause is, unless otherwise stated, a reference to a subsection or a clause of the Section or subsection in which the reference appears.

(ii) The words "hereof," "herein," "hereto," "hereunder" and the like mean and refer to this Agreement as a whole and not merely to the specific Section, subsection, paragraph or clause in which the respective word appears.

(iii) The meaning of defined terms shall be equally applicable to both the singular and plural forms of the terms defined.

(iv) The words "including," "includes" and "include" shall be deemed to be followed by the words "without limitation."

(v) References to agreements and other contractual instruments shall be deemed to include all subsequent amendments and other modifications thereto.

(vi) References to statutes or regulations are to be construed as including all statutory and regulatory provisions consolidating, amending or replacing the statute or regulation referred to.

(vii) Any captions and headings are for convenience of reference only and shall not affect the construction of this Agreement.

(viii) Capitalized words not otherwise defined herein shall have the respective meanings ascribed to them in the Loan Agreement.

(ix) In the event of a direct conflict between the terms and provisions of this Agreement and the Loan Agreement, it is the intention of the parties hereto that both such documents shall be read together and construed, to the fullest extent possible, to be in concert with each other. In the event of any actual, irreconcilable conflict that cannot be resolved as aforesaid, the terms and provisions of the Loan Agreement shall control and govern; provided, however, that the inclusion herein of additional obligations on the part of any Debtor and supplemental rights and remedies in favor of Secured Party (whether under California law or applicable federal law), in each case in respect of the Patent Collateral, shall not be deemed a conflict with the Loan Agreement.

## 2. Security Interest.

(a) Assignment and Grant of Security Interest. As security for the payment and performance of the Secured Obligations, each Debtor hereby assigns, transfers, conveys, and grants a security interest to Secured Party in, all of such Debtor's right, title and interest in, to and under the following property, whether now existing or hereafter acquired or arising (collectively, the "Patent Collateral"):

(i) all letters patent of the U.S. or any other country, all registrations and recordings thereof, and all applications for letters patent of the U.S. or any other

country, owned, held or used by that Debtor in whole or in part, including all existing U.S. patents and patent applications of that Debtor which are described in Schedule A hereto, as the same may be amended or supplemented pursuant hereto from time to time, and together with and including all patent licenses held by that Debtor (unless otherwise prohibited by any license or related licensing agreement under circumstances where the granting of the security interest would have the effect under applicable law of the termination or permitting termination of the license for breach and where the licensor is not an affiliate of a Debtor), together with all reissues, divisions, continuations, renewals, extensions and continuations-in-part thereof and the inventions disclosed therein, and all rights corresponding thereto throughout the world, including the right to make, use, lease, sell and otherwise transfer the inventions disclosed therein, and all proceeds thereof, including all license royalties and proceeds of infringement suits (collectively, the "Patents");

(ii) all claims, causes of action and rights to sue for past, present, or future infringement or unconsented use of any of the Patents and all rights arising therefrom and pertaining thereto;

(iii) all general intangibles (as defined in the UCC) and all intangible intellectual or other similar property of that Debtor of any kind or nature, whether now owned or hereafter acquired or developed, associated with or arising out of any of the Patents and not otherwise described above; and

(iv) all products and Proceeds of any and all of the foregoing.

(b) Continuing Security Interest. Each Debtor agrees that this Agreement shall create a continuing security interest in the Patent Collateral which shall remain in effect until terminated in accordance with Section 17.

3. Further Assurances; Appointment of Secured Party as Attorney-in-Fact. Each Debtor at its expense shall execute and deliver, or cause to be executed and delivered, to Secured Party any and all documents and instruments, in form and substance satisfactory to Secured Party, and take any and all action, which Secured Party may reasonably request from time to time, to perfect and continue perfected, maintain the priority of or provide notice of Secured Party's security interest in the Patent Collateral and to accomplish the purposes of this Agreement. Secured Party shall have the right, in the name of each Debtor, or in the name of Secured Party or otherwise, without notice to or assent by that Debtor, and each Debtor hereby irrevocably constitutes and appoints Secured Party (and any of Secured Party's officers or employees or agents designated by Secured Party) as that Debtor's true and lawful attorney-in-fact with full power and authority, (i) to sign the name of that Debtor on all or any of such documents or instruments and perform all other acts that Secured Party deems necessary or advisable in order to perfect or continue perfected, maintain the priority or enforceability of or provide notice of Secured Party's security interest in, the Patent Collateral, and (ii) to execute

any and all other documents and instruments, and to perform any and all acts and things for and on behalf of that Debtor, which Secured Party may deem necessary or advisable to maintain, preserve and protect the Patent Collateral and to accomplish the purposes of this Agreement, including (A) after the occurrence and during the continuance of any Event of Default, to defend, settle, adjust or institute any action, suit or proceeding with respect to the Patent Collateral, (B) after the occurrence and during the continuance of any Event of Default, to assert or retain any rights under any license agreement for any of the Patent Collateral, including any rights of Debtor arising under Section 365(n) of the Bankruptcy Code, and (C) after the occurrence and during the continuance of any Event of Default, to execute any and all applications, documents, papers and instruments for Secured Party to use the Patent Collateral, to grant or issue any exclusive or non-exclusive license with respect to any Patent Collateral (it being understood that so long as no Event of Default has occurred and is continuing, that Debtor may grant or issue licenses in the ordinary course of business with respect to the Patent Collateral), and to assign, convey or otherwise transfer title in or dispose of the Patent Collateral. The power of attorney set forth in this Section 3, being coupled with an interest, is irrevocable so long as this Agreement shall not have terminated in accordance with Section 17.

4. Representations and Warranties. Each Debtor represents and warrants to Secured Party as follows:

(a) No Other Patents. A true and correct list of all of the existing Patents owned, held (whether pursuant to a license or otherwise) or used by that Debtor, in whole or in part, is set forth in Schedule A.

(b) Validity. Each of the Patents listed on Schedule A is subsisting and has not been adjudged invalid or unenforceable, in whole or in part, all maintenance fees required to be paid on account of any Patents have been timely paid for maintaining such Patents in force, and, to the best of that Debtor's knowledge, each of the Patents is valid and enforceable.

(c) Ownership of Patent Collateral; No Violation. (i) That Debtor has rights in and good title to the existing Patent Collateral, (ii) with respect to the Patent Collateral shown on Schedule A hereto as owned by it, that Debtor is the sole and exclusive owner thereof, free and clear of any Liens and rights of others (other than the security interest created hereunder), including licenses, shop rights and covenants by that Debtor not to sue third persons and (iii) with respect to any Patent for which that Debtor is either a licensor or a licensee pursuant to a license or licensee agreement regarding such Patent, each such license or licensing agreement is in full force and effect, that Debtor is not in default of any of its obligations thereunder and, other than the parties to such licenses or licensing agreements, no other Person (except for other licensees of non-exclusive licenses relating to the Patent Collateral) is known by that Debtor to have any rights in or to any of the Patent Collateral. To the best of that

Debtor's knowledge, the past, present and contemplated future use of the Patent Collateral by that Debtor has not, does not and will not infringe upon or violate any right, privilege or license agreement of or with any other Person.

(d) No Infringement. To the best of that Debtor's knowledge, no material infringement or unauthorized use presently is being made of any of the Patent Collateral by any Person.

(e) Powers. That Debtor has the unqualified right, power and authority to pledge and to grant to Secured Party a security interest in all of that Debtor's right, title, and interest in and to the Patent Collateral pursuant to this Agreement, and to execute, deliver and perform its obligations in accordance with the terms of this Agreement, without the consent or approval of any other Person except as already obtained.

5. Covenants. So long as any of the Secured Obligations remain unsatisfied, each Debtor agrees that it will comply with all of the covenants, terms and provisions of this Agreement, the Loan Agreement and the other Loan Documents, and each Debtor will promptly give Secured Party written notice of the occurrence of any event that could have a material adverse effect on any of the Patents or the Patent Collateral, including any petition under the Bankruptcy Code filed by or against any licensor of any of the Patents for which Debtor is a licensee.

6. Future Rights. For so long as any of the Secured Obligations shall remain outstanding, or, if earlier, until Secured Party shall have released or terminated, in whole but not in part, its interest in the Patent Collateral, if and when any Debtor shall obtain rights to any new patentable inventions, or become entitled to the benefit of any Patent, or any reissue, division, continuation, renewal, extension or continuation-in-part of any Patent or Patent Collateral or any improvement thereof (whether pursuant to any license or otherwise), the provisions of Section 2 shall automatically apply thereto and that Debtor shall give to Secured Party prompt notice thereof. Each Debtor shall do all things deemed necessary or advisable by Secured Party to ensure the validity, perfection, priority and enforceability of the security interests of Secured Party in such future acquired Patent Collateral. Each Debtor hereby authorizes Secured Party to modify, amend or supplement the Schedules hereto and to re-execute this Agreement from time to time on that Debtor's behalf and as its attorney-in-fact to include any future patents which are or become Patent Collateral and to cause such re-executed Agreement or such modified, amended or supplemented Schedules to be filed with the PTO.

7. Secured Party's Duties. Notwithstanding any provision contained in this Agreement, Secured Party shall have no duty to exercise any of the rights, privileges or powers afforded to it and shall not be responsible to any Debtor or any other Person for any failure to do so or delay in doing so. Except for the accounting for moneys actually received by Secured Party hereunder or in connection herewith, Secured Party shall have no duty or liability to exercise or preserve any rights, privileges or powers pertaining to the Patent Collateral.



8. Remedies. Secured Party shall have all rights and remedies available to it under the Loan Agreement and applicable law (which rights and remedies are cumulative) with respect to the security interests in any of the Patent Collateral or any other Collateral. Each Debtor agrees that such rights and remedies include the right of Secured Party as a secured party to sell or otherwise dispose of its Collateral after default, pursuant to UCC Section 9504. Each Debtor agrees that Secured Party shall at all times have such royalty free licenses, to the extent permitted by law, for any Patent Collateral that is reasonably necessary to permit the exercise of any of Secured Party's rights or remedies upon or after the occurrence of (and during the continuance of) an Event of Default with respect to (among other things) any tangible asset of the Debtors in which Secured Party has a security interest, including Secured Party's rights to sell inventory, tooling or packaging which is acquired by the Debtors (or their respective successors, permitted assignees or trustees in bankruptcy). In addition to and without limiting any of the foregoing, upon the occurrence and during the continuance of an Event of Default, Secured Party shall have the right but shall in no way be obligated to bring suit, or to take such other action as Secured Party deems necessary or advisable, in the name of any Debtor or Secured Party, to enforce or protect any of the Patent Collateral, in which event each Debtor shall, at the request of Secured Party, do any and all lawful acts and execute any and all documents required by Secured Party in aid of such enforcement. To the extent that Secured Party shall elect not to bring suit to enforce such Patent Collateral, each Debtor agrees to use all reasonable measures and its diligent efforts, whether by action, suit, proceeding or otherwise, to prevent the material infringement, misappropriation or violations thereof by others and for that purpose agrees diligently to maintain any action, suit or proceeding against any Person necessary to prevent such material infringement, misappropriation or violation.

9. Binding Effect. This Agreement shall be binding upon, inure to the benefit of and be enforceable by each Debtor and Secured Party and their respective successors and permitted assigns.

10. Notices. All notices and other communications hereunder to or from Secured Party or any one or more of the Debtors shall be in writing and shall be mailed, sent or delivered in accordance with the Loan Agreement.

11. GOVERNING LAW AND VENUE; JURY TRIAL WAIVER. THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF CALIFORNIA, EXCEPT TO THE EXTENT THAT THE VALIDITY OR PERFECTION OF THE ASSIGNMENT AND SECURITY INTERESTS HEREUNDER IN RESPECT OF ANY PROPERTY ARE GOVERNED BY FEDERAL LAW, IN WHICH CASE SUCH CHOICE OF CALIFORNIA LAW SHALL NOT BE DEEMED TO DEPRIVE SECURED PARTY OF SUCH RIGHTS AND REMEDIES AS MAY BE AVAILABLE UNDER FEDERAL LAW. THE VALIDITY OF THIS AGREEMENT, ITS CONSTRUCTION, INTERPRETATION, AND ENFORCEMENT, AND THE RIGHTS OF THE PARTIES HERETO SHALL BE DETERMINED UNDER, GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH

THE LAWS OF THE STATE OF CALIFORNIA. THE PARTIES AGREE THAT ALL ACTIONS OR PROCEEDINGS ARISING IN CONNECTION WITH THIS AGREEMENT SHALL BE TRIED AND LITIGATED ONLY IN THE STATE AND FEDERAL COURTS LOCATED IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA OR, AT THE SOLE OPTION OF SECURED PARTY, IN ANY OTHER COURT IN WHICH SECURED PARTY SHALL INITIATE LEGAL OR EQUITABLE PROCEEDINGS AND WHICH HAS SUBJECT MATTER JURISDICTION OVER THE MATTER IN CONTROVERSY. EACH DEBTOR AND SECURED PARTY WAIVES, TO THE EXTENT PERMITTED UNDER APPLICABLE LAW, ANY RIGHT EACH MAY HAVE TO ASSERT THE DOCTRINE OF FORUM NON CONVENIENS OR TO OBJECT TO VENUE TO THE EXTENT ANY PROCEEDING IS BROUGHT IN ACCORDANCE WITH THIS SECTION 11.

EACH DEBTOR AND SECURED PARTY HEREBY WAIVE THEIR RESPECTIVE RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT OR ANY OF THE TRANSACTIONS CONTEMPLATED HEREIN, INCLUDING CONTRACT CLAIMS, TORT CLAIMS, BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW OR STATUTORY CLAIMS. EACH DEBTOR AND SECURED PARTY REPRESENT THAT EACH HAS REVIEWED THIS WAIVER AND EACH KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL. IN THE EVENT OF LITIGATION, A COPY OF THIS AGREEMENT MAY BE FILED AS A WRITTEN CONSENT TO A TRIAL BY THE COURT.

12. Entire Agreement; Amendment. This Agreement, together with the Schedules hereto, contains the entire agreement of the parties with respect to the subject matter hereof and supersedes all prior drafts and communications relating to such subject matter. Neither this Agreement nor any provision hereof may be modified, amended or waived except by the written agreement of the parties, as provided in the Loan Agreement. Notwithstanding the foregoing, Secured Party may re-execute this Agreement or modify, amend or supplement the Schedules hereto as provided in Section 6 hereof.

13. Severability. If one or more provisions contained in this Agreement shall be invalid, illegal or unenforceable in any respect in any jurisdiction or with respect to any party, such invalidity, illegality or unenforceability in such jurisdiction or with respect to such party shall, to the fullest extent permitted by applicable law, not invalidate or render illegal or unenforceable any such provision in any other jurisdiction or with respect to any other party, or any other provisions of this Agreement.

14. Counterparts. This Agreement may be executed in any number of counterparts and by different parties hereto in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute but one and the same agreement.

15. Loan Agreement. Each Debtor acknowledges that the rights and remedies of Secured Party with respect to the security interest in the Patent Collateral granted hereby are more fully set forth in the Loan Agreement and the other Loan Documents and all such rights and remedies are cumulative.

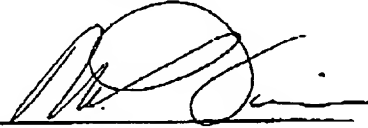
16. No Inconsistent Requirements. Each Debtor acknowledges that this Agreement and the other Loan Documents may contain covenants and other terms and provisions variously stated regarding the same or similar matters, and each Debtor agrees that all such covenants, terms and provisions are cumulative and all shall be performed and satisfied in accordance with their respective terms.

17. Termination. Upon the indefeasible payment in full of the Secured Obligations, including the cash collateralization, expiration, or cancellation of all Secured Obligations, if any, consisting of letters of credit, and the full and final termination of any commitment to extend any financial accommodations under the Loan Agreement, this Agreement shall terminate and Secured Party shall execute and deliver such documents and instruments and take such further action reasonably requested by any Debtor and at that Debtor's expense as shall be necessary to evidence termination of the security interest granted by that Debtor to Secured Party hereunder.

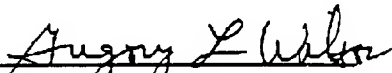
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IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement,  
as of the date first above written.

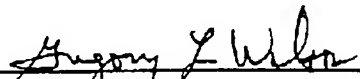
**LASERSIGHT INCORPORATED,**  
a Delaware corporation

By   
Title: President

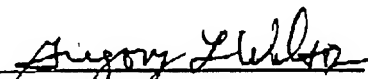
**LASERSIGHT TECHNOLOGIES,  
INC.,**  
a Delaware corporation

By   
Title: Vice President

**MEC HEALTH CARE, INC.,**  
a Maryland corporation

By   
Title: Vice President

**LSI ACQUISITION, INC.,**  
a New Jersey corporation

By   
Title: Secretary/Treasurer

**LASERSIGHT CENTERS  
INCORPORATED,**  
a Delaware corporation

By *Gregory L. Wilson*  
Title: vice President

**MRF, INC.,**  
a Missouri corporation

By *Gregory L. Wilson*  
Title: Secretary/Treasurer

**FOOTHILL CAPITAL  
CORPORATION,**  
a California corporation

By *Frank B. Jones*  
Title: Vice President

FILED IN 12/17/98


STATE OF CALIFORNIA )

COUNTY OF LOS ANGELES )

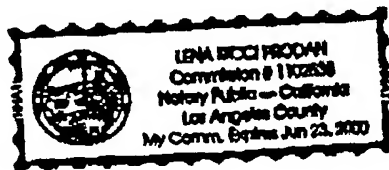
SS

On March 31, 1997, before me, Lena Ricci-Prodan, Notary Public, personally appeared Michael R. Farris, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity(ies), and that by his signature(s) on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

  
Signature

[SEAL]



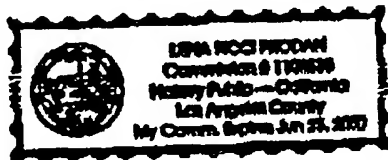
STATE OF CALIFORNIA       )  
                                  ) ss  
COUNTY OF LOS ANGELES    )

On March 31, 1997, before me, Lena Ricci-Prodan, Notary Public, personally appeared Gregory L. Wilson, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity(ies), and that by his signature(s) on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

  
Signature

[SEAL]



STATE OF CALIFORNIA       )  
                                  ) ss  
COUNTY OF LOS ANGELES    )

On March 31, 1997, before me, Lena Ricci-Prodan, Notary Public, personally appeared Rhonda Foreman, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her authorized capacity(ies), and that by her signature(s) on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

  
Signature

[SEAL]





SCHEDULE A  
to the Patent Security Agreement  
Issued U.S. Patents of Each Debtor

<u>Debtor</u>	<u>Patent No.</u>	<u>Issue Date</u>	<u>Inventor</u>	<u>Title</u>
---------------	-------------------	-------------------	-----------------	--------------

[see attached]

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A-1.

SCHEDULE A  
to the Patent Security Agreement

Issued U.S. Patents of Each Debtor

<u>Debtor</u>	<u>Patent No.</u>	<u>Issue Date</u>	<u>Inventor</u>	<u>Title</u>
LaserSight	5,144,630	09-01-92	Lin	Multiwavelength Solid State Laser Using Frequency Conversion Techniques
LaserSight	5,520,679	05-28-96	Lin	Ophthalmic Surgery Method Non- Contact Scanning Laser
LaserSight	5,370,641	12-06-94	O'Donnell	Laser Trabeculodissection
LaserSight	5,217,452	06-08-93	O'Donnell	Transclerical Laser Treatment of Subretinal Neovascularization
LaserSight	5,460,627	10-24-95	O'Donnell	Method of Evaluating a Laser Used in Ophthalmological Surgery

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*[Handwritten signature]*  
*[Handwritten initials]*

SCHEDULE A  
to the Patent Security Agreement

Pending U.S. Patent Applications of Each Debtor

<u>Debtor</u>	<u>Serial No.</u>	<u>Filing Date</u>	<u>Inventor</u>	<u>Title</u>
---------------	-------------------	--------------------	-----------------	--------------

NONE.

BPHLA\RTS\0442380.03

A-2.

*[Handwritten signature]*  
*[Handwritten initials]*

SCHEDULE A  
to the Patent Security Agreement

U.S. Patent Licenses of Each Debtor

<u>Debtor</u>	<u>Patent No.</u>	<u>Issue Date/Filing Date</u>	<u>Inventor</u>	<u>Title</u>	<u>Nature of License</u>
[see attached]					

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A-3.

*[Handwritten signature]*

**SCHEDULE A**  
**to the Patent Security Agreement**

**Issued U.S. Patent Licenses of Each Debtor**

<u>Debtor</u>	<u>Patent No.</u>	<u>Issue Date</u>	<u>Inventor</u>	<u>Title</u>	<u>Nature of License</u>
LaserSight	4,784,135	11-15-88	Blum et al.	Far Ultraviolet Surgical and Dental Procedures [Photodecomposition]	See 1992 IBM License Agreement

THESE PATENTS ARE

*[Handwritten signature]*

1. The first part of the document is a list of names and their corresponding addresses. The names are listed in a column on the left, and the addresses are listed in a column on the right. The names are: John Doe, Jane Smith, and Bob Johnson. The addresses are: 123 Main St, 456 Elm St, and 789 Oak St.

C



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D C. 20231

AUGUST 27, 1997

PTAS

BROBECK, PHLEGER & HARRISON  
TRACEY M. HODSON  
550 SOUTH HOPE STREET  
LOS ANGELES, CALIFORNIA 90071



\*100505852A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, NORTH TOWER BUILDING, SUITE 10C35, WASHINGTON, D.C. 20231.

RECORDATION DATE: 08/05/1997

REEL/FRAME: 8621/0644  
NUMBER OF PAGES: 8

BRIEF: AMENDMENT TO PATENT SECURITY AGREEMENT

ASSIGNOR:

LASERSIGHT INCORPORATED

DOC DATE: 07/28/1997

ASSIGNOR:

LASERSIGHT TECHNOLOGIES, INC.

DOC DATE: 07/28/1997

ASSIGNOR:

MEC HEALTH CARE, INC.

DOC DATE: 07/28/1997

ASSIGNOR:

LSI ACQUISITION, INC.

DOC DATE: 07/28/1997

ASSIGNOR:

MRF, INC.

DOC DATE: 07/28/1997

ASSIGNOR:

LASERSIGHT CENTERS INCORPORATED

DOC DATE: 07/28/1997

ASSIGNEE:

FOOTHILL CAPITAL CORPORATION  
11111 SANTA MONICA BLVD.  
LOS ANGELES, CALIFORNIA 90025-3333

8621/0644 PAGE 2

SERIAL NUMBER: 08323177  
PATENT NUMBER: 5586980

FILING DATE: 10/14/1994  
ISSUE DATE: 12/24/1996

STEVEN POST, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

2000-11-17 14:00:00



FORM PTO-1585  
(Rev. 8-93)

R

08-08-1997

1 SHEET

U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

OMB No. 0651-0011 (exp. 4/94)

581-40.00

5586980

Tab settings

To the Honorable Commissioner of



100505852

attached original documents or copy thereof

## 1. Name of conveying party(ies):

-LaserSight Incorporated -MBP, Inc.

-LaserSight Technologies, Inc.

-MBC Health Care, Inc. -LaserSight

-LSI Acquisition, Inc. Centers Incorporated

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

## 2. Name and address of receiving party(ies)

Name: Foothill Capital Corporation

Internal Address: \_\_\_\_\_

Street Address: 11111 Santa Monica Blvd.Suite 1500City: Los Angeles State: CA ZIP: 90025-  
3333Additional name(s) & address(es) attached? ☐ Yes ☒ No

## 3. Nature of conveyance:

☐ Assignment☐ Merger☐ Security Agreement☐ Change of Name☒ Other Amendment to Patent Security  
AgreementExecution Date: July 28, 1997

## 4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

A. Patent Application No.(s)

B. Patent No.(s)

5,586,980

Additional numbers attached? ☐ Yes ☒ No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Brobeck, Phleger & HarrisonName: Attention: Kara Bue

Internal Address: \_\_\_\_\_

Street Address: 550 South Hope StreetCity: Los Angeles State: CA ZIP: 900716. Total number of applications and patents involved: 17. Total fee (37 CFR 3.41).....\$ 40.00☐ Enclosed☐ Authorized to be charged to deposit account

## 8. Deposit account number: \_\_\_\_\_

(Attach duplicate copy of this page if paying by deposit account)

08/07/1997 VBROWN 00000144 5586980  
01 FC:581 40.00 09

DO NOT USE THIS SPACE

## 9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Tracey M. Hodson

Name of Person Signing

Signature

8/4/97

Date

Total number of pages including cover sheet, attachments, and document: 7Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents & Trademarks, Box Assignments



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BPE LA

004/011

**LSI ACQUISITION, INC.,**  
a New Jersey corporation

By: Gregory L. Wilson  
Name: Gregory L. Wilson  
Title: Secretary/Treasurer

**LASERSIGHT CENTERS INCORPORATED,**  
a Delaware corporation

By: Gregory L. Wilson  
Name: Gregory L. Wilson  
Title: Vice President

**MRF, INC.,**  
a Missouri corporation

By: Gregory L. Wilson  
Name: Gregory L. Wilson  
Title: Secretary/Treasurer

**FOOTHILL CAPITAL CORPORATION,**  
a California corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

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12/17/98

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BROBECK

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B.P.&amp;B.

004/011

**LSI ACQUISITION, INC.,**  
a New Jersey corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**LASERSIGHT CENTERS INCORPORATED,**  
a Delaware corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**MRF, INC.,**  
a Missouri corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**FOOTHILL CAPITAL CORPORATION,**  
a California corporation

By: Gilbert R. Joseph  
Name: Gilbert R. Joseph  
Title: Vice President

RECEIVED

STATE OF Missouri )  
 ) ss  
COUNTY OF St. Louis )

On July 20<sup>th</sup>, 1997, before me, Katherine E. Schubel, Notary Public, personally appeared Michael R. Farris, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Katherine E. Schubel  
Signature



KATHERINE E. SCHUBEL  
NOTARY PUBLIC—STATE OF MISSOURI  
ST. LOUIS COUNTY  
MY COMMISSION EXPIRES FEB. 6, 1998

[SEAL]

STATE OF Missouri )  
 ) ss  
 COUNTY OF St. Louis )

On July 28<sup>th</sup>, 1997, before me, Katherine E. Schubel, Notary Public, personally appeared Gregory L. Wilson, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Katherine E. Schubel  
 Signature



KATHERINE E. SCHUBEL  
 NOTARY PUBLIC—STATE OF MISSOURI  
 ST. LOUIS COUNTY  
 MY COMMISSION EXPIRES FEB. 6, 2000

[SEAL]

1006144-000304

STATE OF

California

COUNTY OF

Los Angeles

Suzanne Witkowsky

Notary Public

On July 28 1997, before me, \_\_\_\_\_, Notary Public, personally appeared Albert R. Joseph, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Suzanne Witkowsky  
Signature



[SEAL]

FBI - LOS ANGELES

## F A C S I M I L E T R A N S M I T T A L

**BROBECK  
PHLEGER &  
HARRISON**  
LLP  
ATTORNEYS AT LAW

550 SOUTH HOPE STREET  
LOS ANGELES  
CALIFORNIA 90071-2604  
TELEPHONE: (213) 489-4060  
FACSIMILE: (213) 745-3345  
www.brobeck.com

Pages to Follow Cover: \_\_\_\_

DECEMBER 17, 1998

User ID: 3787

CMID NUMBER: 019870.0105

SENDER: Kamila B. Luigs

PHONE: (213) 745-3426

EMAIL: KLuigs@Brobeck.com

RECIPIENT	COMPANY	PHONE	FAX
Michelle Martinez	Foothill Capital Corporation	(310) 996-7144	(310) 479-2690

## MESSAGE

Please see attached.

## P R I V I L E G E D A N D C O N F I D E N T I A L

All information transmitted hereby is intended only for the use of the addressee(s) named above. If the reader of this message is not the intended recipient or the employee or agent responsible for delivering the message to the intended recipient(s), please note that any distribution or copying of this communication is strictly prohibited. Anyone who receives this communication in error should notify us immediately by telephone and mail the original message to us at the above address.

TRANSMISSION PROBLEMS: ARMIDA FLORES



SCHEDULE A  
to the Patent Security Agreement

Foreign Patents of Each Debtor

<u>Debtor</u>	<u>Country</u>	<u>Patent/ Application</u>	<u>Issue/ Filing Date</u>	<u>Inventor</u>	<u>Title</u>
PATENTS:					
LaserSight	Australia	570225	9/9/88	Blum, et. al.	Far Ultraviolet Surgical and Dental Procedures
LaserSight	Canada	1238690	6/28/88	Blum, et. al.	Far Ultraviolet Surgical and Dental Procedures
LaserSight	Spain	527415	1/21/85	Blum, et. al.	Far Ultraviolet Surgical and Dental Procedures
PATENT APPLICATIONS:					
LaserSight	Australia	17615/88	11/24/83	Blum, et. al.	Far Ultraviolet Surgical and Dental Procedures
LaserSight	Brazil	PI8306654	12/2/83	Blum, et. al.	Far Ultraviolet Surgical and Dental Procedures
LaserSight	Japan	194475/83	10/19/83	Blum, et. al.	Far Ultraviolet Surgical and Dental Procedures

[illegible]

D



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

JUNE 28, 1999

PTAS

FARKAS & MANELLI PLLC  
WILLIAM H. BOLLMAN  
2000 M STREET, N.W., SUITE 700  
WASHINGTON, D.C. 20036



\*101045682A\*

**UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT**

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 04/07/1999

REEL/FRAME: 9893/0557

NUMBER OF PAGES: 7

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

**ASSIGNOR:**

FOOTHILL CAPITAL CORPORATION

DOC DATE: 12/29/1998

**ASSIGNEE:**

LASERSIGHT INCORPORATED  
12161 LACKLAND ROAD  
ST. LOUIS, MISSOURI 63146

**ASSIGNEE:**

LASERSIGHT TECHNOLOGIES, INC.  
12249 SCIENCE DRIVE, SUITE 160  
ORLANDO, FLORIDA 32826

**ASSIGNEE:**

MFC HEALTH CARE, INC.  
100 PARK AVENUE  
BALTIMORE, MARYLAND 21201

ASSIGNEE:

LSI ACQUISITION, INC.  
71 SECOND STREET  
SOUTH ORANGE, NEW JERSEY 07079

ASSIGNEE:

LASERSIGHT CENTERS INCORPORATED  
12161 LACKLAND ROAD  
ST. LOUIS, MISSOURI 63146

ASSIGNEE:

MRF, INC.  
12161 LACKLAND ROAD  
ST. LOUIS, MISSOURI 63146

SERIAL NUMBER: 06894520  
PATENT NUMBER: 4784135

FILING DATE: 08/11/1986  
ISSUE DATE: 11/15/1988

SERIAL NUMBER: 08269139  
PATENT NUMBER: 5460627

FILING DATE: 06/30/1994  
ISSUE DATE: 10/24/1995

SERIAL NUMBER: 07884008  
PATENT NUMBER: 5217452

FILING DATE: 05/18/1992  
ISSUE DATE: 06/08/1993

SERIAL NUMBER: 07886926  
PATENT NUMBER: 5370641

FILING DATE: 05/22/1992  
ISSUE DATE: 12/06/1994

SERIAL NUMBER: 08218319  
PATENT NUMBER: 5520679

FILING DATE: 03/25/1994  
ISSUE DATE: 05/28/1996

SERIAL NUMBER: 07736931  
PATENT NUMBER: 5144630

FILING DATE: 07/29/1991  
ISSUE DATE: 09/01/1992

SERIAL NUMBER: 08323177  
PATENT NUMBER: 5586980

FILING DATE: 10/14/1994  
ISSUE DATE: 12/24/1996

JOANN STEWART, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

06-25-1999

U.S. Department of Commerce  
Patent and Trademark Office  
**PATENT**



101045682

**RECORDATION FORM COVER SHEET  
PATENTS ONLY**

TO: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies).

Submission Type **4-7-99**

☒ New

☐ Resubmission (Non-Recordation)

Document ID#

☐ Correction of PTO Error

Reel #

Frame #

☐ Corrective Document

Reel #

Frame #

Conveyance Type

☐ Assignment

☐ Security Agreement

☐ License

☐ Change of Name

☐ Merger

☒ Other **Release of Security**

**U.S. Government**

Agreement

(For Use ONLY by U.S. Government Agencies)

☐ Departmental File

☐ Secret File

Conveying Party(ies)

☒ Mark if additional names of conveying parties attached

Execution Date  
Month Day Year

Name (line 1)

Foothill Capital Corporation

12-29-98

Name (line 2)

Execution Date  
Month Day Year

Second Party

Name (line 1)

Name (line 2)

Receiving Party

☒ Mark if additional names of receiving parties attached

Name (line 1)

LaserSight Incorporated

Name (line 2)

☐ If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)

Address (line 1)

12161 Lackland Road

Address (line 2)

Address (line 3)

St. Louis

Missouri

63146

City

State/Country

Zip Code

Domestic Representative Name and Address

Enter for the first Receiving Party only.

Name

Address (line 1)

Address (line 2)

Address (line 3)

Address (line 4)

04/15/1999 VBROWN 00000002 4784135

01 FC:581

280.00 OP

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**280E  
NO SPEC  
FEE**

Public burden reporting for this collection of information is estimated to average approximately 30 minutes per Cover Sheet to be recorded, including time for reviewing the document and gathering the data needed to complete the Cover Sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Chief Information Officer, Washington, D.C. 20231 and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Paperwork Reduction Project (0651-0027), Washington, D.C. 20503. See OMB Information Collection Budget Package 0651-0027, Patent and Trademark Assignment Practice. DO NOT SEND REQUESTS TO RECORD ASSIGNMENT DOCUMENTS TO THIS ADDRESS

Mail documents to be recorded with required cover sheet(s) information to:  
Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20231

**Correspondent Name and Address**

Area Code and Telephone Number

Name

Address (line 1)

Address (line 2)

Address (line 3)

Address (line 4)

**Pages**

Enter the total number of pages of the attached conveyance document including any attachments.

#

**Application Number(s) or Patent Number(s)**

☐ Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

**Patent Application Number(s)**

**Patent Number(s)**

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="4,784,135"/>	<input type="text" value="5,370,641"/>	<input type="text" value="5,586,980"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="5,460,627"/>	<input type="text" value="5,520,679"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="5,217,452"/>	<input type="text" value="5,144,630"/>	<input type="text"/>

If this document is being filed together with a new Patent Application, enter the date the patent application was signed by the first named executing inventor.

Month Day Year

**Patent Cooperation Treaty (PCT)**

Enter PCT application number  
only if a U.S. Application Number  
has not been assigned.

PCT  PCT  PCT   
PCT  PCT  PCT

**Number of Properties**

Enter the total number of properties involved.

#

**Fee Amount**

Fee Amount for Properties Listed (37 CFR 3.41): \$

Method of Payment:  
Deposit Account

Enclosed ☒ Deposit Account ☐

(Enter for payment by deposit account or if additional fees can be charged to the account.)

Deposit Account Number:

#

Authorization to charge additional fees:

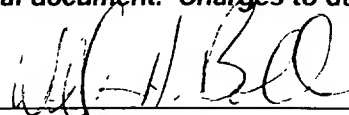
Yes ☒ No ☐

**Statement and Signature**

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein.*

William H. Bollman

Name of Person Signing



Signature

April 7, 1999

Date

RECORDATION FORM COVER SHEET  
CONTINUATION  
PATENTS ONLYU.S. Department of Commerce  
Patent and Trademark Office  
**PATENT****Conveying Party(ies)**☐ Mark if additional names of conveying parties attached

Enter additional Conveying Parties

Execution Date  
Month Day Year

Name (line 1)

Name (line 2)

Name (line 1)

Name (line 2)

Name (line 1)

Name (line 2)

Execution Date  
Month Day YearExecution Date  
Month Day Year**Receiving Party(ies)**☒ Mark if additional names of receiving parties attached

Enter additional Receiving Party(ies)

Name (line 1)

Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3)

Name (line 1)

Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3)

☐ If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)☐ If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)

City

State/Country

Zip Code

City

State/Country

Zip Code

**Application Number(s) or Patent Number(s)**☐ Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

**Patent Application Number(s)****Patent Number(s)**



**RECORDATION FORM COVER SHEET  
CONTINUATION  
PATENTS ONLY**

U.S. Department of Commerce  
Patent and Trademark Office  
**PATENT**

**Conveying Party(ies)**

☐ Mark if additional names of conveying parties attached

Enter additional Conveying Parties

Execution Date  
Month Day Year

Name (line 1)

Name (line 2)

Execution Date  
Month Day Year

Name (line 1)

Name (line 2)

Execution Date  
Month Day Year

Name (line 1)

Name (line 2)

**Receiving Party(ies)**

☒ Mark if additional names of receiving parties attached

Enter additional Receiving Parties

Name (line 1)

☐ If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)

Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3)     
City State/Country Zip Code

Name (line 1)

☐ If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)

Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3)     
City State/Country Zip Code

**Application Number(s) or Patent Number(s)**

☐ Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Number(s)

Patent Number(s)

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## RELEASE AND REASSIGNMENT

THIS RELEASE AND REASSIGNMENT is executed as of APRIL 2, 1999 by Foothill Capital Corporation, a California corporation ("Foothill").

### WITNESSETH

WHEREAS, Foothill on the one hand, and LaserSight Incorporated, a Delaware corporation ("LaserSight"), LaserSight Technologies, Inc., a Delaware corporation ("Technologies"), MEC Health Care, Inc., a Maryland corporation ("MEC"), LSI Acquisition, Inc., a New Jersey corporation ("LSI"), LaserSight Centers Incorporated, a Delaware corporation ("Centers"), and MRF, Inc., a Missouri corporation ("MRF", and collectively, with LaserSight, Technologies, MEC, LSI and Centers, "Debtor") on the other hand, are parties to a certain Loan and Security Agreement dated as of March 31, 1997 (the "Loan Agreement");

WHEREAS, Foothill and Debtor are parties to a certain Patent Security Agreement dated as of March 31, 1997 (the "Agreement"), as amended by that certain Amendment To Patent Security Agreement, dated as of July 28, 1997, between Foothill and Debtor (the "Amendment"), pursuant to which Debtor incurred certain liabilities to and granted a security interest in and collateral assignment of the Patent Collateral (as defined in the Agreement), including, without limitation, all letters patent, all registrations and recording thereof, and all applications for letters patent of the U.S. or any other country owned, held or used by Debtor in whole or in part, including all existing U.S. patents and patent applications of Debtor which are described in Schedule A to the Agreement and in the Amendment, as security for Debtor's obligations to Foothill under the Loan Agreement;

WHEREAS, the Agreement was recorded by the United States Patent and Trademark Office at Reel 8430, Frame 0001 therein on April 03, 1997;

WHEREAS, the Amendment was recorded by the United States Patent and Trademark Office at Reel 8621, Frame 00644 therein on August 05, 1997; and

WHEREAS, Debtor has satisfied its obligations under the Loan Agreement and has requested that Foothill release its security interest in the Patent Collateral and reassign the same to Debtor;

NOW, THEREFORE, for good and valuable consideration, receipt and sufficiency of which are hereby acknowledged:

1. Foothill hereby releases, without any representation, recourse or undertaking by Foothill, its security interest in and collateral assignment of the Patent Collateral.

2. Foothill hereby reassigns, grants and conveys to Debtor, without any representation, recourse or undertaking by Foothill, all of Foothill's right, title and interest, if

any, in and to the Patent Collateral appearing in Schedule A to the Agreement and in the Amendment.

IN WITNESS WHEREOF, Foothill has caused this Release and Reassignment to be duly executed by its duly authorized officer as of the day and year first above written.

Foothill Capital Corporation

By Kevin M. Coyle  
Kevin M. Coyle  
Its Senior Vice President

STATE OF CALIFORNIA )  
 ) ss.  
COUNTY OF LOS ANGELES )

On this 2<sup>nd</sup> day of April, 1999 before me personally appeared Kevin M. Coyle known to me to be the individual who executed the foregoing instrument and acknowledged to me that he/she executed the same as the duly authorized officer above designated of Foothill Capital Corporation.

Margie Vargo Navas  
Notary Public, 4-2-99 3/23/01

Los Angeles County, California  
My commission expires: 03/23/01



**TRANSMITTAL LETTER (Large Entity)**

Application Number: 09/084,441

Group Art Unit: 3739

Filed: May 27, 1998

Examiner Name: Michael Peffley

Applicant: LIN

Attorney Docket Number: 62-575

TITLE: OPTHALMIC SURGERY METHOD USING NON-CONTACT SCANNING LASER

ASSISTANT COMMISSIONER FOR PATENTS  
WASHINGTON, D.C. 20231

SIR:

Transmitted herewith is a FOURTH SUPPLEMENTAL AMENDMENT in the above-identified application.

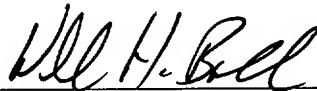
LARGE entity status is now claimed.

The fee has been calculated and is transmitted as shown below.

CLAIMS ASAMENDED					
	CLAIMS REMIANING AFTER Amendment	HIGHEST # PREV. PAID FOR	#OF EXTRA CLAIMS	RATE	ADDITIONAL FEE
Total Claims	93 -	106	0	x \$9 =	\$0
Independent Claims	10 -	10	0	x \$39 =	\$0
Multiple Dependent Claim(s), if applicable					\$0
TOTAL ADDITIONAL FEE:					\$0

No fee is believed to be due. However, should a fee be assessed, the commissioner is **hereby authorized to charge** any fees required under 37 C.F.R. 1.16 or any patent application processing fees under 37 C.F.R. 1.17 associated with this communication, or to credit any overpayment to **Deposit Account No. 50-0687 under order No. 62-575.**

Respectfully submitted,



William H. Bollman

Reg. No.: 36,457

Attorney for Applicant(s)

Date: February 8, 2001  
Manelli Denison & Selter PLLC  
2000 M Street, N.W. Suite 700  
Washington, DC 20036-3307  
Tel. (202) 261-1020  
Fax. (202) 887-0336RECEIVED  
FEB-8 2001  
TECHNOLOGY CENTER 3700